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DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

RIN 0648-XC068

Takes of Marine Mammals Incidental to Specified Activities; Harbor Activities Related to the Delta IV/Evolved Expendable Launch Vehicle at Vandenberg Air Force Base, CA AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notice; proposed incidental take authorization; request for comments.

SUMMARY: We have received an application from United Launch Alliance, for an Incidental Harassment Authorization to take marine mammals, by harassment, incidental to conducting <u>Delta Mariner</u> operations, cargo unloading activities, and harbor maintenance activities at south Vandenberg Air Force Base, CA. United Launch Alliance is requesting an Authorization per the Marine Mammal Protection Act. We are requesting comments on our proposal to issue an Incidental Harassment Authorization to United Launch Alliance to incidentally harass, by Level B harassment only, three species of marine mammals during their specified activities from September 2012, through August 2013.

DATES: We must receive comments and information no later than [insert date 30 days after date of publication in the FEDERAL REGISTER].

ADDRESSES: Comments on the application should be addressed to P. Michael Payne, Chief, Permits and Conservation Division, Office of Protected Resources, National Marine Fisheries Service, 1315 East-West Highway, Silver Spring, MD 20910-3225.

The mailbox address for providing email comments is ITP.Cody@noaa.gov. We are not responsible for e-mail comments sent to addresses other than the one provided here. Comments sent via email, including all attachments, must not exceed a 10-megabyte file size.

Instructions: All submitted comments are a part of the public record. We will post comments on our website at

http://www.nmfs.noaa.gov/pr/permits/incidental.htm#applications without change. All Personal Identifying Information (for example, name, address, etc.) voluntarily submitted by the commenter may be publicly accessible. Do not submit confidential business information or otherwise sensitive or protected information.

To obtain an electronic copy of the application containing a list of the references used in this document, write to the previously mentioned address, telephone the contact listed here (see FOR FURTHER INFORMATION CONTACT) or access our webpage at: http://www.nmfs.noaa.gov/pr/permits/incidental.htm#applications.

FOR FURTHER INFORMATION CONTACT: Jeannine Cody, NMFS, Office of Protected Resources, NMFS (301) 427-8401.

SUPPLEMENTARY INFORMATION:

Background

Section 101(a)(5)(D) of the MMPA (MMPA; 16 U.S.C. 1361 et seq.) directs the Secretary of Commerce to authorize, upon request, the incidental, but not intentional, taking of small numbers of marine mammals of a species or population stock, by United States citizens who engage in a specified activity (other than commercial fishing) within a specified geographical region if: (1) we make certain findings; (2) the taking is limited

to harassment; and (3) we provide a notice of a proposed authorization to the public for review.

We shall grant authorization for the incidental taking of small numbers of marine mammals if we find that the taking will have a negligible impact on the species or stock(s), and will not have an unmitigable adverse impact on the availability of the species or stock(s) for subsistence uses (where relevant). The authorization must set forth the permissible methods of taking; other means of effecting the least practicable adverse impact on the species or stock and its habitat; and requirements pertaining to the mitigation, monitoring and reporting of such takings.

We have defined "negligible impact" in 50 CFR 216.103 as "an impact resulting from the specified activity that cannot be reasonably expected to, and is not reasonably likely to, adversely affect the species or stock through effects on annual rates of recruitment or survival."

Section 101(a)(5)(D) of the Marine Mammal Protection Act established an expedited process by which citizens of the United States can apply for an authorization to incidentally take small numbers of marine mammals by harassment. Section 101(a)(5)(D) of the Act establishes a 45-day time limit for our review of an application followed by a 30-day public notice and comment period on any proposed authorizations for the incidental harassment of small numbers of marine mammals. Within 45 days of the close of the public comment period, we must either issue or deny the authorization and must publish a notice in the <u>Federal Register</u> within 30 days of our determination to issue or deny the authorization.

Except with respect to certain activities not applicable here, the Marine Mammal

Protection Act defines "harassment" as: any act of pursuit, torment, or annoyance which (i) has the potential to injure a marine mammal or marine mammal stock in the wild [Level A harassment]; or (ii) has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering [Level B harassment].

Summary of Request

We received an application on May 7, 2012, from United Launch Alliance requesting the taking, by Level B harassment only, of small numbers of marine mammals, incidental to conducting <u>Delta Mariner</u> harbor operations for one year. We determined the application complete and adequate on June 5, 2012.

These activities (i.e., transport vessel operations, cargo movement activities, and harbor maintenance dredging) will support Delta IV/EELV launch activities from the Space Launch Complex at Vandenberg Air Force Base (Base) and would occur in the vicinity of a known pinniped haul out site (Small Haul-out Site #1 in the Application) located in a harbor on the southwest section of the Base.

Acoustic and visual stimuli generated by the use of heavy equipment during the <u>Delta Mariner</u> off-loading operations and the, cargo movement activities, the increased presence of personnel, and harbor maintenance dredging have the potential to cause California sea lions (<u>Zalophus californianus</u>), Pacific harbor seals (<u>Phoca vitulina</u>), and Northern elephant seals (<u>Mirounga angustirostris</u>) hauled out on Small Haul-out Site #1 to flush into Base's harbor or cause a short-term behavioral disturbance for marine mammals in the proposed area. These types of disturbances are the principal means of

marine mammal taking associated with these activities. This is United Launch Alliance's tenth request for an Authorization and they have requested take of Pacific harbor seals; California sea lions; and Northern elephant seals by Level B harassment only. To date, we have issued nine, one-year, Incidental Harassment Authorizations to them for the conduct of the same activities from 2002 to 2011, with the last Authorization expiring on June 6, 2012 (76 FR 33721, June 9, 2011). United Launch Alliance did not conduct any operations between 2003 and 2008, and accordingly, was not required to conduct any monitoring activities related to harbor maintenance or <u>Delta Mariner</u> operations. After a six-year hiatus, they commenced harbor maintenance activities in July 2009. We present the monitoring results from the 2009 through 2011 operating seasons in the Summary of Previous Monitoring section of this notice.

Description of the Specified Geographic Region

The proposed activities will take place in or near the Base's harbor located on the central coast of California at 34° 33′ N, 120° 36′ W in the northeast Pacific Ocean. The harbor is approximately 2.5 miles (mi) (4.02 kilometers (km)) south of Point Arguello, CA and approximately 1 mi (1.61 km) south of the nearest marine mammal rookery. Description of the Specified Activity

United Launch Alliance proposes to conduct Delta IV/EELV activities (transport vessel operations, harbor maintenance dredging, and cargo movement activities) between September 1, 2012 and August 31, 2013.

The Delta IV/EELV launch vehicle is comprised of a common booster core, an upper stage, and a payload fairing. The size of the common booster core requires it to be transported to the Base's launch site by a specially designed vessel, the <u>Delta Mariner</u>.

To allow safe operation of the <u>Delta Mariner</u>, maintenance dredging within a harbor located in Zone 6 of the Western Space and Missile Center in the Pacific Ocean (33 CFR 334.1130(a)(2)(vi)), United Launch Alliance requires that the harbor undergo maintenance on a periodic basis.

Delta Mariner Operations

The Delta Mariner is a 312-foot (ft) (95.1-meter (m)) long, 84-ft (25.6-m) wide, steel-hulled, ocean-going vessel capable of operating at an 8-ft (2.4-m) draft. It is a roll-on, roll-off, self-propelled ship with an enclosed watertight cargo area, a superstructure forward, and a ramp at the vessel's stern.

<u>Delta Mariner</u> off-loading operations and associated cargo movements within the harbor would occur at a maximum frequency of four times per year and United Launch Alliance has scheduled the first delivery for November 2012.

The 8,000-horsepower vessel would enter the harbor stern first at 1.5 to 2 knots (kts) (1.72 mi per hour (mph)) during daylight hours at high tide, approaching the wharf at less than 0.75 kts (0.86 mph). At least one tugboat will always accompany the <u>Delta Mariner</u> during visits to the Base's harbor. The vessel's departure will occur during daylight hours at high tide approximately 10 hours after the vessel's arrival.

Cargo Movement Activities

Removal of the common booster core from the vessel requires the use of an elevating platform transporter (transporter). The transporter is powered by a diesel engine manufactured by Daimler-Chrysler AG (Mercedes), model OM442A, 340HP. United Launch Alliance would limit cargo unloading activities to periods of high tide. It takes approximately two hours to remove the first common booster core from the cargo bay

and six hours to remove a complement of three common booster cores. It would take up to two additional hours to remove remaining cargo which may consist of two upper stages, one set of fairings, and one payload attach fitting. The total of 10 hours includes time required to move the flight hardware to the staging area. United Launch Alliance packs flight hardware items, other than the common booster cores, in containers equipped with retractable casters and tow bars. United Launch Alliance would tow these containers off the vessel by a standard diesel truck tractor. Noise from the ground support equipment will be muted while inside the cargo bay and will be audible to marine mammals only during the time that the equipment is in the harbor area. Cargo movement operations would occur for approximately 43 days (concurrent with the harbor maintenance activities).

Harbor Maintenance Activities

United Launch Alliance must perform maintenance dredging annually or twice per year, depending on the hardware delivery schedule to accommodate the <u>Delta Mariner's</u> draft. Dredging would involve the use of heavy equipment, including a clamshell dredge, dredging crane, a small tug, dredging barge, dump trucks, and a skip loader.

Acoustic Source Specifications

We discuss the associated noise sources from the <u>Delta Mariner</u>, harbor maintenance equipment, and the transporter in the following section.

Metrics Used in This Document

This section includes a brief explanation of the sound measurements frequently used in the discussions of acoustic effects in this document. Sound pressure is the sound force per unit area. A standard practice is to measure the pressure in micropascals (µPa), where

1 pascal (Pa) is the pressure resulting from a force of one newton exerted over an area of one square meter. Sound pressure level is expressed as the ratio of a measured sound pressure and a reference level. The commonly used reference pressure level in underwater acoustics is 1 μ Pa, and the units for sound pressure levels are dB re: 1 μ Pa. Sound pressure level (in decibels (dB)) = 20 log (pressure/reference pressure)

Sound pressure level is an instantaneous measurement and can be expressed as the peak, the peak-peak (p-p), or the root mean square. Root mean square, which is the square root of the arithmetic average of the squared instantaneous pressure values, is typically used in discussions of the effects of sounds on vertebrates and all references to sound pressure level in this document refer to the root mean square unless otherwise noted. Sound pressure level does not take the duration of a sound into account.

Characteristics of Vessel Noise

Sources of noise from the <u>Delta Mariner</u> include ventilating propellers used for maneuvering the vessel into position and a brief sound from the cargo bay door when it becomes disengaged. United Launch Alliance has not performed any in situ sound measurements outside the vessel.

Characteristics of Harbor Maintenance and Cargo Equipment Noise

United Launch Alliance estimates that the noise levels emanating from within 50 ft (15.2 m) of the equipment (i.e., backhoe, water truck, and clamshell dredge and the cargo moving equipment (transporter and roll-off truck transporter) would range from 56 to 95 dB re: $20 \,\mu\text{Pa}$ (A-weighted). The ambient background noise at the dock area ranges from 35 to 48 dB re: $20 \,\mu\text{Pa}$ (A-weighted) at 250 ft (76.2 m). United Launch Alliance presents the equipment noise levels measured at the dock area in Table 1.2-1 of their application.

We expect that acoustic stimuli, resulting from the proposed activities, have the potential to incidentally harass marine mammals. We also expect these disturbances to be temporary and result in a temporary modification in behavior and/or low-level physiological effects (Level B harassment only) of small numbers of certain species of marine mammals.

We do not expect that the movement of the <u>Delta Mariner</u> during the conduct of the proposed activities, has the potential to harass marine mammals because of the relatively slow operation speed of the vessel (1.5 to 2 kts; 1.72 mph) during its approach to the area at high tide and the vessel's slow operational speed (0.75 kts; 0.86 mph) during its approach to the wharf.

Description of Marine Mammals in the Area of the Proposed Specified Activity

The marine mammal species most likely to be harassed incidental to conducting <u>Delta</u>

<u>Mariner</u> operations, cargo unloading activities, and harbor maintenance activities at the

Base are the California sea lion, the Pacific Harbor seal, and the northern elephant seal.

We refer the public to Carretta et al., (2011) for general information on these species which are presented below this section. The publication is available at:

http://www.nmfs.noaa.gov/pr/pdfs/sars/po2011.pdf .

California sea lion

California sea lions are not listed as threatened or endangered under the Endangered Species Act, nor are they categorized as depleted under the Marine Mammal Protection Act. The California sea lion is now a full species, separated from the Galapagos sea lion (Z. wollebaeki) and the extinct Japanese sea lion (Z. japonicus) (Brunner 2003, Wolf et al., 2007, Schramm et al., 2009). The estimated population of the U.S. stock of

California sea lion is approximately 296,750 animals and the current maximum population growth rate is 12 percent (Carretta et al., 2011).

California sea lion breeding areas are on islands located in southern California, in western Baja California, Mexico, and the Gulf of California. During the breeding season, most California sea lions inhabit southern California and Mexico. Rookery sites in southern California are limited to the San Miguel Islands and the southerly Channel Islands of San Nicolas, Santa Barbara, and San Clemente (Carretta et al., 2011). Males establish breeding territories during May through July on both land and in the water. Females come ashore in mid-May and June where they give birth to a single pup approximately four to five days after arrival and will nurse pups for about a week before going on their first feeding trip. Females will alternate feeding trips with nursing bouts until the pup is weaned between four and 10 months of age (NMML, 2010).

Adult and juvenile males will migrate as far north as British Columbia, Canada while females and pups remain in southern California waters in the non-breeding season. In warm water (El Niño) years, some females are found as far north as Washington and Oregon, presumably following prey.

The largest concentrations of California sea lions in the vicinity of the Base occur at Lion Rock, an islet located at (34°53′ N, 120°39′ W) offshore of Point Sal, CA approximately 24 mi (38.6 km) north of where the activities will occur. Historical observations have noted the presence of at least 100 California sea lions hauled out during any season at Lion Rock (Roest, 1995); small groups migrating south along the Base's coastline commencing in April (Tetra Tech, 1997); juveniles hauled-out with harbor seals along the South Base sites from July through September (Tetra Tech, 1997);

and finally, large groups of sea lions migrating north along the Base's coastline beginning in August (Tetra Tech, 1997). A recent Air Force report cited fewer than 100 sea lions occurring seasonally on the Base (USAF 2008). Sea lions may sporadically haul out to rest when foraging or transiting through the area, but generally spend little time there (USAF, 2008).

Pacific harbor seal

Pacific harbor seals are not listed as threatened or endangered under the Endangered Species Act, nor are they categorized as depleted under the Marine Mammal Protection Act. The estimated population of the California stock of Pacific harbor seals is approximately 30,196 animals (Carretta et al., 2011).

The animals inhabit near-shore coastal and estuarine areas from Baja California, Mexico, to the Pribilof Islands in Alaska. Pacific harbor seals are divided into two subspecies: P. v. stejnegeri in the western North Pacific, near Japan, and P. v. richardsi in the northeast Pacific Ocean. The latter subspecies, recognized as three separate stocks, inhabits the west coast of the continental United States, including: the outer coastal waters of Oregon and Washington states; Washington state inland waters; and Alaska coastal and inland waters.

In California, over 500 harbor seal haulout sites are widely distributed along the mainland and offshore islands, and include rocky shores, beaches and intertidal sandbars (Lowry et al., 2005). Harbor seals mate at sea and females give birth during the spring and summer, although, the pupping season varies with latitude. Pups are nursed for an average of 24 days and are ready to swim minutes after being born. Harbor seal pupping takes place at many locations and rookery size varies from a few pups to many hundreds

of pups. The nearest harbor seal rookery relative to the operational area is at Rocky Point, CA approximately one mile (1.61 km) south of the harbor.

United Launch Alliance estimates that the total population of harbor seals on the Base is approximately 1,115 (maximum of 500 seals hauled out at one time on the southern portion of the Base) based on sighting surveys and telemetry data (SRS, 2003). The harbor seal population on Base experienced an annual 4.1 percent increase from 2003 to 2006 and appears to be reaching its carrying capacity, as the population shows little change or slight increases between 2005 and 2008 (MSRS, 2009).

The daily haul-out behavior of harbor seals along the southern part of the Base's coastline is primarily dependent on time of day. The highest numbers of seals haul-out between 1100 and 1600 hours and the seals will occasionally haul out at a beach 250 ft (76.2 m) west of the harbor and on rocks outside the harbor breakwater where United Launch Alliance proposes to conduct <u>Delta Mariner</u> operations.

Northern elephant seal

Northern elephant seals are not listed as threatened or endangered under the Endangered Species Act, nor are they categorized as depleted under the Marine Mammal Protection Act. The estimated population of the San Miguel stock is approximately 2,492 animals and the current maximum population growth rate is 12 percent (Carretta et al., 2011).

Northern elephant seals range in the eastern and central North Pacific Ocean, from as far north as Alaska and as far south as Mexico. Northern elephant seals spend much of the year, generally about nine months, in the ocean. They are usually underwater, diving to depths of about 1,000-2,500 ft (330-800 m) for 20- to 30-minute intervals with only

short breaks at the surface. They are rarely seen out at sea for this reason. While on land, they prefer sandy beaches.

Northern elephant seals breed and give birth in California (U.S.) and Baja California (Mexico), primarily on offshore islands (Stewart <u>et al.</u>, 1994), from December to March (Stewart and Huber, 1993). Males feed near the eastern Aleutian Islands and in the Gulf of Alaska, and females feed further south, south of 45° N (Stewart and Huber, 1993; Le Boeuf <u>et al.</u>, 1993). Adults return to land between March and August to molt, with males returning later than females. Adults return to their feeding areas again between their spring/summer molting and their winter breeding seasons.

United Launch Alliance reports that northern elephant seals do not breed within the Base's harbor area nor on its offshore islets. However, some juvenile and sub-adult elephant seals, primarily immature males, regularly use some of the Base's shoreline as haul-outs. The juvenile and sub-adult elephant seals do not haul out in the harbor area.

United Launch Alliance has no verified records of elephant seals on the Base prior to 1998. In April 2003, the Air Force documented the first occurrence of hauled out elephant seals at South Rocky Point during the molting season (USAF, 2003). In 2004, they counted a maximum of 188 elephant seals on the Base; however, the animals observed hauled out since that survey have decreased, with no documented individuals hauled out since 2007 (USAF, 2008).

Other Marine Mammals in the Proposed Action Area

There are several cetaceans that have the potential to transit in the vicinity of the Base's harbor including the short-beaked common dolphin (<u>Delphinus delphis</u>), the Pacific white-sided dolphin (<u>Lagenorhynchus obliquidens</u>), and the endangered gray

whale (<u>Eschrichtius robustus</u>). We will not consider these species further in this notice of a proposed Incidental Harassment Authorization because they are typically found farther offshore of the Base's harbor and are unlikely or rare in the proposed action area and the <u>Delta Mariner's</u> operations would not likely affect these species.

Other species of pinnipeds species are rare to infrequent along the southern portion of the Base's coast during certain times of the year and are unlikely to experience harassment by United Launch Alliance's activities. These three species are: the northern fur seal (Callorhinus ursinus), Guadalupe fur seal (Arctocephalus townsendi), and Steller sea lion (Eumetopias jubatus). Northern fur seals, Guadalupe fur seals, and Steller sea lions occur along the California coast and Northern Channel Islands but are not likely to be found on the Base. We refer the public to Carretta et al., (2011) for general information on the species' life history and distribution. The stock assessment report is available at: http://www.nmfs.noaa.gov/pr/pdfs/sars/po2011.pdf.

California (southern) sea otters (Enhydra lutris nereis) are listed as threatened under the Endangered Species Act and categorized as depleted under the Marine Mammal Protection Act. The U.S. Fish and Wildlife Service manages this species and we will not consider this species in greater detail within this notice. The proposed Authorization will only address requested take authorizations for pinnipeds.

Potential Effects on Marine Mammals

Acoustic and visual stimuli generated by: the use of heavy equipment during the Delta Mariner off-loading operations and harbor dredging and the increased presence of personnel may have the potential to cause Level B harassment of any pinnipeds hauled out in the Base's harbor. This disturbance from acoustic and visual stimuli is the

principal means of marine mammal taking associated with these activities.

Pinnipeds sometimes show startle reactions when exposed to sudden brief sounds. An acoustic stimulus with sudden onset (such as a sonic boom) may be analogous to a "looming" visual stimulus (Hayes and Saif, 1967), which may elicit flight away from the source (Berrens et al., 1988). The onset of operations by a loud sound source, such as the transporter during common booster core off-loading procedures, may elicit such a reaction. In addition, the movements of cranes and dredges may represent a "looming" visual stimulus to seals hauled out in close proximity. Seals and sea lions exposed to such acoustic and visual stimuli may either exhibit a startle response and/or leave the haul-out site

According to the Marine Mammal Protection Act and our implementing regulations, if harbor activities disrupt the behavioral patterns of harbor seals or sea lions, these activities would take marine mammals by Level B harassment. In general, if the received level of the noise stimulus exceeds both the background (ambient) noise level and the auditory threshold of the animals, and especially if the stimulus is novel to them, there may be a behavioral response. The probability and degree of response will also depend on the season, the group composition of the pinnipeds, and the type of activity in which they are engaged. Minor and brief responses, such as short-duration startle or alert reactions, are not likely to constitute disruption of behavioral patterns, such as migration, nursing, breeding, feeding, or sheltering (i.e., Level B harassment) and would not cause injury or mortality to marine mammals. On the other hand, startle and alert reactions accompanied by large-scale movements, such as stampedes into the water of hundreds of animals, may rise to the degree of Level A harassment because they could result in injury

of individuals. In addition, such large-scale movements by dense aggregations of marine mammals or at pupping sites could potentially lead to takes by injury or death. However, there is no potential for large-scale movements leading to serious injury or mortality near the south Base harbor because, historically, the number of harbor seals hauled out near the site is less than 30 individuals, and there is no pupping at nearby sites. The effects of the harbor activities are expected to be limited to short-term startle responses and localized behavioral changes.

Summary of Previous Monitoring

United Launch Alliance has complied with the mitigation and monitoring that we required under the previous Authorizations for the 2009, 2010, and 2011 seasons. In compliance with each Authorization, they have submitted a final report on the activities at the Base's harbor covering each annual period. Each Incidental Harassment Authorization required them to conduct baseline observations of pinnipeds in the project area prior to initiating project activities; conduct and record observations on pinnipeds in the vicinity of the harbor for the duration of the activity occurring when tides are 2 ft (0.61 m) or less (i.e., low enough for pinnipeds to haul-out); and conduct post-construction observations of pinniped haul-outs in the project area to determine whether animals possibly disturbed by the project's activities would return to the haul-out area.

During the 2009 season (July 8 - September 21) United Launch Alliance conducted 21 days of operations which did not exceed the activity levels analyzed under the 2009 Authorization. The observers noted that Pacific harbor seals hauled out in the vicinity were more responsive to visual disturbances than to auditory disturbances. They reported that the maximum number of harbor seals hauled out ranged from zero to 28 animals with

most using the rocks approximately 540 to 570 ft (164.9 to 173.7 m) south of the harbor area. The maximum number of sea lions present ranged from zero to two animals with both hauled out at either the breakwater and or on a beach southwest of the dock area. United Launch Alliance did not observe any reactions of the harbor seals during equipment start-up. However, the observers noted that in some instances, the harbor seals slowly flushed when they could see equipment moving from their vantage point in the haulout area.

During the course of the 2009 season, harbor seals showed head alerts on 15 occasions and slowly entered the water on 24 occasions. Only one California sea lion showed a head alert during the entire operational season.

For the 2010 season (June 2 - 18) United Launch Alliance conducted seven days of operations which did not exceed the activity levels that we analyzed under the 2010 Authorization. They reported that the maximum number of harbor seals hauled out ranged from zero to 14 animals. Similar to the previous year, the harbor seals hauled out on the rocks south of the harbor area. The maximum number of sea lions present ranged from zero to two animals.

During the course of the 2010 season, harbor seals showed a head alert on only one occasion and entered the water on two occasions. In the first instance, the harbor seal resettled within one minute after the head alert. In the second instance, both harbor seals returned to the haulout within three minutes. The observers routinely observed pinnipeds in the water within and around the harbor for the duration of project activities. They report that they did not observe any altered behavior while the animals were in the water due to activities occurring on the dock or in the harbor.

During the 2011 season (July 22 - August 18; October 24- November 7) they conducted a total of 19 days of operations which did not exceed the activity levels analyzed under the 2011 Authorization. They reported that the maximum number of harbor seals hauled out ranged from zero to 38 animals and the maximum number of sea lions present ranged from zero to one animal.

During the course of the 2011 season, harbor seals showed a head alert on 23 occasions and slowly entered the water on 19 occasions. Again, the observers routinely observed pinnipeds rafting in the water within and around the harbor for the duration of project activities. For a complete record of all observations, we refer the reader to United Launch Alliance's monitoring reports at:

http://www.nmfs.noaa.gov/pr/permits/incidental.htm#applications.

Based on the results from the previous monitoring reports, we conclude that these results support our original findings that the mitigation measures set forth in the 2009, 2010, and 2011 Authorizations effected the least practicable adverse impact on the species or stocks. During periods of low tide (e.g., when tides are 2 ft (0.61 m) or less and low enough for pinnipeds to haul-out), we would expect the pinnipeds to return to the haulout site within 60 minutes of the disturbance (Allen et al., 1985). The effects to pinnipeds appear at the most to displace the animals temporarily from their haul out sites and we do not expect that the pinnipeds would permanently abandon a haul-out site during the conduct of harbor maintenance and Delta Mariner operations.

Finally, no operations would occur near pinniped rookeries; therefore, we do not expect mother and pup separation or crushing of pups to occur.

The potential effects to marine mammals described in this section of the document do

not take into consideration the proposed monitoring and mitigation measures described later in this document (see the "Proposed Mitigation" and "Proposed Monitoring and Reporting" sections) which, as noted, should effect the least practicable adverse impact on affected marine mammal species and stocks.

Anticipated Effects on Habitat

We do not anticipate that the proposed operations would result in any temporary or permanent effects on the habitats used by the marine mammals in the proposed area, including the food sources they use (i.e. fish and invertebrates). While it is anticipated that the specified activity may result in marine mammals avoiding certain areas due to temporary ensonification, this impact to habitat is temporary and reversible and was considered in further detail earlier in this document, as behavioral modification. The main impact associated with the proposed activity will be temporarily elevated noise levels and the associated direct effects on marine mammals, previously discussed in this notice.

Proposed Mitigation

In order to issue an incidental take authorization under section 101(a)(5)(D) of the Marine Mammal Protection Act, we must set forth the permissible methods of taking pursuant to such activity, and other means of effecting the least practicable adverse impact on such species or stock and its habitat, paying particular attention to rookeries, mating grounds, and areas of similar significance, and the availability of such species or stock for taking for certain subsistence uses.

United Launch Alliance has based the proposed mitigation measures described herein, to be implemented for the proposed operations, on the following:

- (1) Protocols used during previous operations as approved by us; and
- (2) Previous incidental harassment authorizations that we have approved and authorized; and

To reduce the potential for disturbance from visual and acoustic stimuli associated with the activities, United Launch Alliance/and or its designees propose to implement the following mitigating measures for marine mammals:

- (1) If activities occur during nighttime hours, United Launch Alliance will turn on lighting equipment before dusk. The lights would remain on for the entire night to avoid startling pinnipeds.
- (2) Initiate operations before dusk.
- (3) Keep construction noises at a constant level (i.e., not interrupted by periods of quiet in excess of 30 minutes) while pinnipeds are present.
- (4) If activities cease for longer than 30 minutes and pinnipeds are in the area, United Launch Alliance would initiate a gradual start-up of activities to ensure a gradual increase in noise levels.
- (5) A qualified marine mammal observer would visually monitor the harbor seals on the beach adjacent to the harbor and on rocks for any flushing or other behaviors as a result of United Launch Alliance's activities (see Proposed Monitoring).
- (6) The <u>Delta Mariner</u> and accompanying vessels would enter the harbor only when the tide is too high for harbor seals to haul-out on the rocks; reducing speed to 1.5 to 2 knots (1.5-2.0 nm/hr; 2.8-3.7 km/hr) once the vessel is within 3 mi (4.83 km) of the harbor. The vessel would enter the harbor stern first, approaching the wharf and moorings at less than 0.75 knot (1.4 km/hr).

(7) As United Launch Alliance explores alternate dredge methods, the dredge contractor may introduce quieter techniques and equipment.

We have carefully evaluated the applicant's proposed mitigation measures and have considered a range of other measures in the context of ensuring that we have prescribed the means of effecting the least practicable adverse impact on the affected marine mammal species and stocks and their habitat. Our evaluation of potential measures included consideration of the following factors in relation to one another:

- (1) The manner in which, and the degree to which, we expect that the successful implementation of the measure would minimize adverse impacts to marine mammals;
- (2) The proven or likely efficacy of the specific measure to minimize adverse impacts as planned; and
 - (3) The practicability of the measure for implementation.

Based on our evaluation of United Launch Alliance's proposed measures, as well as other measures considered by us or recommended by the public, we have preliminarily determined that the mitigation measures provide the means of effecting the least practicable adverse impacts on marine mammals species or stocks and their habitat, paying particular attention to rookeries, mating grounds, and areas of similar significance. Proposed Monitoring

In order to issue an Incidental Harassment Authorization for an activity, section 101(a)(5)(D) of the Marine Mammal Protection Act states that we must set forth "requirements pertaining to the monitoring and reporting of such taking." The Act's implementing regulations at 50 CFR 216.104 (a)(13) indicate that requests for an authorization must include the suggested means of accomplishing the necessary

monitoring and reporting that will result in increased knowledge of the species and our expectations of the level of taking or impacts on populations of marine mammals present in the action area.

As part of its 2012 application for an Authorization, United Launch Alliance proposes to sponsor marine mammal monitoring during the present project, in order to implement the mitigation measures that require real-time monitoring, and to satisfy the monitoring requirements of the incidental harassment authorization. We describe the Monitoring Plan below this section. United Launch Alliance understands that this monitoring plan will be subject to review by us, and that we may require refinements to the plan.

United Launch Alliance will designate a qualified, and biologically trained observer to monitor the area for pinnipeds during all harbor activities. During nighttime activities, United Launch Alliance will illuminate the harbor area and the observer will use a night vision scope. Monitoring activities will consist of the following:

- (1) Conducting baseline observation of pinnipeds in the project area prior to initiating project activities.
- (2) Conducting and recording observations on pinnipeds in the vicinity of the harbor for the duration of the activity occurring when tides are low enough (less than or equal to 2 ft (0.61 m) for pinnipeds to haul out
- (3) Conducting post-construction observations of pinniped haul-outs in the project area to determine whether animals disturbed by the project activities return to the haul-out.

We have reviewed the monitoring results from previous operations and have incorporated the results into the analysis of potential effects in this document.

Proposed Reporting

United Launch Alliance will notify us two weeks prior to initiation of each activity. After the completion of each activity, they will submit a draft final monitoring report to us within 120 days to the Director of the Office of Protected Resources at our headquarters. If United Launch Alliance receives no comments from us on the draft Final Monitoring Report, we would consider the draft Final Monitoring Report to be the Final Monitoring Report.

The final report would provide dates, times, durations, and locations of specific activities, details of pinniped behavioral observations, and estimates of numbers of affected pinnipeds and impacts (behavioral or other). In addition, the report would include information on the weather, tidal state, horizontal visibility, and composition (species, gender, and age class) and locations of haul-out group(s).

In the unanticipated event that the specified activity clearly causes the take of a marine mammal in a manner prohibited by the authorization (if issued), such as an injury (Level A harassment), serious injury or mortality (e.g., ship-strike, gear interaction, and/or entanglement), United Launch Alliance shall immediately cease the specified activities and immediately report the incident to the Incidental Take Program Supervisor, Permits and Conservation Division, Office of Protected Resources, NMFS, at 301-427-8401 and/or by email to Jolie.Harrison@noaa.gov and ITP.Cody@noaa.gov and to the Southwest Regional Stranding Coordinator at (562) 980–3230 (Sarah.Wilkin@noaa.gov). The report must include the following information:

- Time, date, and location (latitude/longitude) of the incident;
- Name and type of vessel involved;

- Vessel's speed during and leading up to the incident;
- Description of the incident;
- Status of all sound source use in the 24 hours preceding the incident;
- Water depth;
- Environmental conditions (e.g., wind speed and direction, Beaufort sea state, cloud cover, and visibility);
- Description of all marine mammal observations in the 24 hours preceding the incident;
- Species identification or description of the animal(s) involved;
- Fate of the animal(s); and
- Photographs or video footage of the animal(s) (if equipment is available).

United Launch Alliance shall not resume its activities until we are able to review the circumstances of the prohibited take. We shall work with them to determine what is necessary to minimize the likelihood of further prohibited take and ensure Marine Mammal Protection Act compliance. They may not resume their activities until notified by us via letter, email, or telephone.

In the event that United Launch Alliance discovers an injured or dead marine mammal, and the observer determines that the cause of the injury or death is unknown and the death is relatively recent (i.e., in less than a moderate state of decomposition as we describe in the next paragraph), the United Launch Alliance will immediately report the incident to the Incidental Take Program Supervisor, Permits and Conservation Division, Office of Protected Resources, at 301-427-8401 and/or by email to Jolie.Harrison@noaa.gov and ITP.Cody@noaa.gov and to the Southwest Regional

Stranding Coordinator at (562) 980–3230 (Sarah.Wilkin@noaa.gov). The report must include the same information identified in the paragraph above this section. Activities may continue while we review the circumstances of the incident. We will work with the United Launch Alliance to determine whether modifications in the activities are appropriate.

In the event that United Launch Alliance discovers an injured or dead marine mammal, and the observer determines that the injury or death is not associated with or related to the authorized activities (e.g., previously wounded animal, carcass with moderate to advanced decomposition, or scavenger damage), United Launch Alliance will report the incident to the Incidental Take Program Supervisor, Permits and Conservation Division, Office of Protected Resources, at 301-427-8401 and/or by email to Jolie.Harrison@noaa.gov and ITP.Cody@noaa.gov and the Southwest Regional Stranding Coordinator at (562) 980–3230 (Sarah.Wilkin@noaa.gov), within 24 hours of the discovery. United Launch Alliance will provide photographs or video footage (if available) or other documentation of the stranded animal sighting to us.

Except with respect to certain activities not pertinent here, the Marine Mammal Protection Act defines "harassment" as: any act of pursuit, torment, or annoyance which (i) has the potential to injure a marine mammal or marine mammal stock in the wild [Level A harassment]; or (ii) has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering [Level B

Estimated Take by Incidental Harassment

harassment].

We propose to authorize take by Level B harassment only for the proposed harbor maintenance and <u>Delta Mariner</u> operations in the Base's harbor. Acoustic stimuli (i.e., increased sound) generated during these proposed activities may have the potential to cause marine mammals in the harbor area to experience temporary, short-term changes in behavior.

Based on previous monitoring reports, with the same activities conducted in the proposed operations area, we estimate that approximately 1,161 Pacific harbor seals; 86 California sea lions; and 43 northern elephant seals could be potentially affected by Level B behavioral harassment over the course of the period of effectiveness of the proposed Authorization. We base these estimates on historical pinniped survey counts from 2001 to 2011 and calculated takes by multiplying the average of the maximum abundance by 43 days (i.e., the total number of operational days). Thus, United Launch Alliance requests an Authorization to incidentally harass approximately 1,161 Pacific harbor seals (27 animals by 43 days), 86 California sea lions (2 animals by 43 days), and 43 northern elephant seals (1 animal by 43 days).

There is no evidence that United Launch Alliances planned activities could result in injury, serious injury or mortality within the harbor area for the requested Authorization. Because of the required mitigation measures and the likelihood that some pinnipeds will avoid the area due to wave inundation of the haulout area, the required mitigation and monitoring measures will minimize any potential risk for injury, serious injury, or mortality. Thus, we do not propose to authorize any injury, serious injury or mortality. We expect all potential takes to fall under the category of Level B behavioral harassment only.

Encouraging and Coordinating Research

United Launch Alliance will continue to coordinate monitoring of pinnipeds during

Delta IV/EELV activities at the Base's harbor with Vandenberg Air Force Base Asset

Management staff and other pinniped monitoring activities occurring on the Base.

United Launch Alliance will submit all information collected during Delta IV/EELV pinniped monitoring events the Asset Management staff for incorporation into the Basewide monitoring plan to enhance and assist in the increased knowledge and understanding of pinniped populations that occur on the Base's coastline.

The information collected during these monitoring events, along with the information collected for monthly monitoring of pinniped populations and during space vehicle and missile launches is essential for a solid understanding of the trends of these populations of marine mammals and the effects of the Base's activities have on their continued presence. Per the Authorization's requirements, United Launch Alliance will submit monitoring reports us and may make the information available to interested parties and researchers at the discretion of both agencies.

Negligible Impact and Small Numbers Analysis and Determination

We have defined "negligible impact" in 50 CFR 216.103 as "...an impact resulting from the specified activity that cannot be reasonably expected to, and is not reasonably likely to, adversely affect the species or stock through effects on annual rates of recruitment or survival." In making a negligible impact determination, we consider:

- (1) The number of anticipated injuries, serious injuries, or mortalities;
- (2) The number, nature, and intensity, and duration of Level B harassment (all relatively limited); and

- (3) The context in which the takes occur (i.e., impacts to areas of significance, impacts to local populations, and cumulative impacts when taking into account successive/contemporaneous actions when added to baseline data);
- (4) The status of stock or species of marine mammals (i.e., depleted, not depleted, decreasing, increasing, stable, impact relative to the size of the population);
 - (5) Impacts on habitat affecting rates of recruitment/survival; and
 - (6) The effectiveness of monitoring and mitigation measures.

As mentioned previously, we estimate that three species of marine mammals could be potentially affected by Level B harassment over the course of the Authorization. For each species, these numbers are small (each, less than two percent) relative to the population size.

For reasons stated previously in this document, United Launch Alliance's specified activities are not likely to cause long-term behavioral disturbance, abandonment of the haulout area, serious injury, or mortality because:

- (1) The effects of the harbor activities are expected to be limited to short-term startle responses and localized behavioral changes. Minor and brief responses, such as short-duration startle or alert reactions, are not likely to constitute disruption of behavioral patterns, such as migration, nursing, breeding, feeding, or sheltering.
- (2) The likelihood that marine mammal detection by trained, visual observers is high at close proximity the harbor;
- (3) <u>Delta Mariner</u> off-loading operations and associated cargo movements within the harbor would occur at a maximum frequency of four times per year and the vessel's

arrival and departure would occur during daylight hours at high tide when the haulout areas are fully submerged and few, if any, pinnipeds are present in the harbor;

- (4) The relatively slow operational speed of the <u>Delta Mariner</u> (1.5 to 2 kts; 1.72 mph) during its approach to the harbor at high tide and the vessel's slow operational speed (0.75 kts; 0.86 mph) during its approach to the wharf;
- (5) There is no potential for large-scale movements leading to serious injury or mortality near the south Base harbor because, historically, the number of harbor seals hauled out near the site is less than 30 individuals;
 - (6) The specified activities do not occur near rookeries;
- (7) The availability of alternate areas near the harbor for pinnipeds to avoid the resultant noise from the maintenance and vessel operations. Results from previous monitoring reports that support our conclusions that the pinnipeds returned to the haulout site during periods of low tide after the disturbance and do not permanently abandon a haul-out site during the conduct of harbor maintenance and Delta Mariner operations.

We do not anticipate that any injuries, serious injuries, or mortalities would occur as a result of United Launch Alliance's proposed activities, and we do not propose to authorize injury, serious injury or mortality. These species may exhibit behavioral modifications, including temporarily vacating the area during the proposed harbor maintenance and <u>Delta Mariner</u> operations to avoid the resultant acoustic and visual disturbances. Due to the nature, degree, and context of the behavioral harassment anticipated, the activities are not expected to impact rates of recruitment or survival. Further, these proposed activities would not take place in areas of significance for marine mammal feeding, resting, breeding, or calving and would not adversely impact marine

mammal habitat.

We have preliminarily determined, provided that United Launch Alliance carries out the previously described mitigation and monitoring measures, that the impact of conducting harbor activities related to the Delta IV/Evolved Expendable Launch Vehicle at Vandenberg Air Force Base, CA, September 2012, through August 2013, may result, at worst, in a temporary modification in behavior and/or low-level physiological effects (Level B harassment) of small numbers of certain species of marine mammals.

Based on the analysis contained here of the likely effects of the specified activity on marine mammals and their habitat, and taking into consideration the implementation of the mitigation and monitoring measures, have preliminarily determined that the total taking from the proposed activities will have a negligible impact on the affected species or stocks; and that impacts to affected species or stocks of marine mammals would be mitigated to the lowest level practicable.

Impact on Availability of Affected Species or Stock for Taking for Subsistence Uses

Section 101(a)(5)(D) of the Marine Mammal Protection Act also requires us to

determine that the authorization will not have an unmitigable adverse effect on the

availability of marine mammal species or stocks for subsistence use. There are no

relevant subsistence uses of marine mammals in the study area (northeastern Pacific

Ocean) that implicate section 101(a)(5)(D) of the Marine Mammal Protection Act.

Endangered Species Act (ESA)

This action will not affect species listed under the Endangered Species Act that are under our jurisdiction. Vandenberg Air Force Base formally consulted with the U.S. Fish and Wildlife Service in 1998 on the possible take of southern sea otters during United

Launch Alliance's harbor activities. The U.S. Fish and Wildlife Service issued a Biological Opinion in August 2001, which concluded that the program was not likely to jeopardize the continued existence of the southern sea otter, and that expected no injury or mortality. The activities covered by this proposed Incidental Harassment Authorization are analyzed in that Biological Opinion, and this Authorization does not modify the action in a manner that the U.S. Fish and Wildlife Service had not previously analyzed.

National Environmental Policy Act (NEPA)

In 2001, the U.S. Air Force (Air Force) prepared an Environmental Assessment for Harbor Activities Associated with the Delta IV Program at Vandenberg Air Force Base. In 2005, we prepared an Environmental Assessment augmenting the information contained in the Air Force's EA and issued a Finding of No Significant Impact on the issuance of an Incidental Harassment Authorization for United Launch Alliance's harbor activities in accordance with section 6.01 of the NOAA Administrative Order 216-6 (Environmental Review Procedures for Implementing the National Environmental Policy Act, May 20, 1999). United Launch Alliance's proposed activities and impacts for 2012-2013 are within the scope of our 2005 Environmental Assessment and Finding of No Significant Impact. We have again reviewed the 2005 Environmental Assessment and determined that there are no new direct, indirect or cumulative impacts to the human and natural environment associated with the Incidental Harassment Authorization requiring evaluation in a supplemental Environmental Assessment and we, therefore, intend to reaffirm the 2005 Finding of No Significant Impact.

Proposed Authorization

As a result of these preliminary determinations, we propose to authorize the take of

marine mammals incidental to United Launch Alliance's proposed harbor activities in the

northeast Pacific Ocean, provided they incorporate the previously mentioned mitigation,

monitoring, and reporting requirements. The duration of the Incidental harassment

Authorization would not exceed one year from the date of its issuance.

Information Solicited

We request interested persons to submit comments and information concerning this

proposed project and our preliminary determination of issuing a take authorization (see

ADDRESSES). Concurrent with the publication of this notice in the <u>Federal Register</u>,

we will forward copies of this application to the Marine Mammal Commission and its

Committee of Scientific Advisors.

Dated: June 22, 2012

Helen M. Golde,

Acting Director, Office of Protected Resources,

National Marine Fisheries Service.

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